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EXAMINER

NICKERSON, JEFFREY L

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Attachment to Advisory Action**

1. This communication is in response to Application No. 10/816,217 filed on 01 April 2004. The after-final amendment presented on 05 September 2008, which provides change to claims 562-563, is hereby acknowledged and will be entered.

***Claim Rejections - 35 USC § 112***

2. The amendment providing change to claims 562-563 is noted. All outstanding rejections under 35 USC 112 2<sup>nd</sup> paragraph are hereby withdrawn.

***Status of Claims***

3. For purposes of appeal, the status of the claims will be as follows:

Claims pending: 1-6, 9-10, 19-20, 31, 33, 65-66, 86, 91, 109-114, 117-118, 121, 127-128, 138-139, 141, 156, 201-202, 206, 218-219, 221, 229, 233, 244, 549-557, 562-568, and 573-576.

Claims rejected: 1-6, 9-10, 19-20, 31, 33, 65-66, 86, 91, 109-114, 117-118, 121, 127-128, 138-139, 141, 156, 201-202, 206, 218-219, 221, 229, 233, 244, 549-557, 562-568, and 573-576.

***Request for Reconsideration***

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4. Applicant argues that the rejection of claims 1-4, 31, 65, 66, 91, 109-112, 118, 121, 139, 156, 201-202, 206, 218, 219, 221, 244, 553, 557, 562-563, 565-568, and 575-576 under 35 USC 102(a) as being anticipated by Jo ("Synchronized one-to-many media streaming with adaptive playout control", 10 December 2002) was improper due to Jo not teaching a limitation of independent claim 1. Specifically, applicant argues the following limitation is not taught:

*"each task being associated with a time stamp indicating a time, relative to the clock maintained by the task source device, at which the device comprising the synchrony group are to execute the respective task."* (Applicant's independent claim 1)

The examiner respectfully disagrees. Applicant cites portions of Jo in an attempt to disprove Jo does not teach the above limitation. This is ineffective because the fact that Jo teaches further than the claimed invention (or covers varying topics) does not disqualify Jo from teaching the claimed invention. Jo does teach client locally controlling playback speed to prevent buffer overflow/underflow as applicant alleges. However, this local adaptation and the above claimed limitation are not mutually exclusive. Jo teaches an inter-client synchronization framework,

*"[t]he proposed streaming framework consists of 1) local playback adaptation (guided by a playback factor) based on the combined buffer occupancy with error recovery support, 2) **unicast RTCP feedback on the presentation point as***

***well as the channel state, and 3) inter-client synchronization with the synchronization aid from the server.”*** (Jo: section 1, paragraph 4).

Jo’s framework not only includes local adaptive playback at the client side (# 1 from the quote above), but Jo’s system also includes clients passing presentation feedback information to the server (#2 from above) and synchronization instructions from the server (# 3 from above).

Further delving into inter-client synchronization (#3 from above), one must read section 2.4 of Jo in its entirety. Essentially, the clients all feed back their current presentation time to the server using RTCP. The server then estimates a target presentation time based on various factors such as the particular presentation time of a client (received from feedback) and network delay (or round-trip time). For just one client, this would be rather simple, but since the server is attempting to synchronize multiple clients the server must use what Jo refers to as an arbitration policy. The server must aggregate all the feedback from all the clients and choose how to manipulate each presentation time and the network delay to determine the target presentation time of outgoing or previously sent (if a re-adjust is needed) frames. Different methods of manipulation can be used, such as using average client feedback, median client feedback, maximum client feedback, or minimum client feedback. Jo states in section 2.1 that you may want to use the maximum, i.e. slowest, feedback which would “*relax the target presentation point to that of the slowest client to secure the time for retransmission*”. Once the

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computation is complete, the server passes the target presentation time to all clients.

(Jo: See section 2.4, paragraphs 1-2 for above information).

Jo further states in section 2.4, paragraphs 3-4, that the server-aided presentation time provided to clients is used to replace local times. This allows the client to replace/re-update its maintained virtual presentation timer with the server presentation timer.

Therefore, the clients are maintaining an indication of time, relative to the clock maintained at the server, at which the clients should execute tasks. Jo further elaborates that the media streams could be distributed via the MPEG format (Jo: section 2.1, paragraph 1) which inherently contains presentation timestamps. Thusly, Jo teaches the above argued limitation and the rejections are maintained.